

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA,

v.

ROMAN STORM, ET AL.,

Defendants.

Case No. 23 Cr. 430 (KPF)

Final Pretrial Conference: July 8, 2025

**DEFENDANT ROMAN STORM'S**  
**OPPOSITION TO THE GOVERNMENT'S SECOND SET OF MOTIONS TO**  
**EXCLUDE THE TESTIMONY OF THE DEFENDANT'S EXPERT WITNESSES**

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## **I. PRELIMINARY STATEMENT**

The government complains bitterly about the defense providing it with supplemental disclosures regarding its expert witnesses. The government accuses the defense of taking a second bite at the apple, when it is the government that is now bringing a second set of motions because they failed to raise timely objections to the defense's initial disclosures. The defense made supplemental disclosures in good faith and in the spirit of cooperation to address the government's objections raised for the first time in their first set of motions. The Court should not entertain the government's objection to the defense's gesture of good will.

The government's substantive arguments for the exclusion of all of the defense's experts are also meritless. To the extent the government challenges the reliability of the defense experts, their arguments are really just quibbles with the experts' conclusions that go to the weight, not the admissibility, of their testimony. The government's challenges to the relevance of the defense experts are particularly disingenuous as the defense experts are responding directly to the government's arguments and proposed experts, and their testimony will be helpful to the jury, which is all that is required. Finally, contrary to the government's arguments, the defense will not be introducing impermissible legal opinions but rather appropriate background information and opinions that encroach neither on the Court's role in instructing the jury on the law nor on the jury's role in applying that law to the facts.

For these reasons, as discussed below, the Court should deny the government's motions to preclude defense experts.

## II. ARGUMENT

### A. This Court Should Disregard the Government's Objections to the Timeliness or Sufficiency of the Defense's Supplemental Expert Witness Disclosures

The government complains that the defense's supplemental expert witness disclosures were untimely and complains they "still suffer from an array of deficiencies that warrant preclusion." (Dkt. 186 ("Second Exclusion Mot.") at 1.) These complaints are meritless.

As a threshold matter, Mr. Storm maintains his position that Rule 16 does not require the defense to provide expert disclosure in advance where it was not requested of the government, and therefore no pretrial defense expert disclosures should have been ordered. That said, Mr. Storm complied with this Court's order. (*See* Dkts. 126 (Scheduling Order); 134 (Mutual Deadline Extension).) In doing so, Mr. Storm in no way waives or forfeits his prior objections.

Second, the government cannot be heard to complain that the defense's supplemental disclosures were late when it was late with its objections to the defense's initial disclosures. The government had the disclosures for over three months (since March 5, 2025, per this Court's order) and never once mentioned that they believed the disclosures to be inadequate or even that they had questions about them, until they filed their motions to exclude all of the defense expert witnesses on June 6, 2025. (*See* Dkt. 159 ("First Exclusion Mot.")) Here, if the government had timely communicated its objections, the defense would have provided its supplemental disclosures much earlier (although it maintains that no supplementation was required).

In any event, the defense's supplemental disclosures cannot be deemed untimely. Rule 16(b)(1)(C)(vi) and Rule 16(c) specifically allow for, and even call for, supplemental disclosures. Indeed, courts in this District and elsewhere regularly require parties to supplement their Rule 16 disclosures as necessary. *See, e.g., United States v. Kaufman*, 2021 WL 4084523, at \*18 (S.D.N.Y. Sept. 8, 2021); *United States v. Valle*, 2013 WL 440687, at \*6 (S.D.N.Y. Feb. 2,



2013). Courts have concluded that a supplemental disclosure is timely if provided before trial, where it relates to the same topics covered in the initial disclosure. *See, e.g., United States v. Gentile*, 2024 WL 3455834 (E.D.N.Y. July 17, 2024) (declining to exclude a proposed expert’s testimony on timeliness grounds, even where a revised disclosure included new conclusions, because the expert’s revised disclosure “relate[d] to the same topics included in [the expert’s] initial disclosure”); *see, e.g., United States v. Rosario*, 2014 WL 6076364, at \*4 (S.D.N.Y. Nov. 14, 2014) (finding government disclosure less than two weeks before trial sufficient where defense was not prejudiced); *United States v. Patel*, 2023 WL 2643815, at \*40 n.12 (D. Conn. Mar. 27, 2023) (declining to exclude defense expert on basis of untimely disclosure because government “received the materials thirteen days before jury selection”). Here, the supplemental disclosures were made on June 18, 2025, nearly a month before trial and well over a month before any defense expert would testify.<sup>1</sup> This is more than enough time for the government to make use of the additional information provided in the defense’s supplemental disclosures.

Further, the government has repeatedly supplemented its own disclosures here, in particular responding to deficiencies in the disclosure of Special Agent Joel DeCapua by providing additional data on multiple occasions, including on March 4, March 10, July 1 and July 3. Last week, it also supplemented the disclosure of Phillip Werlau, on July 1, and had previously supplemented the data behind his report on June 16. Further, although styled as a “rebuttal disclosure,” Mr. Werlau’s disclosures on March 12 provided a detailed explanation of

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<sup>1</sup> With respect to defense experts Stephanie Hurder and Jeremy Sheridan, the government requested even more information after receiving the defense’s supplemental disclosures. The defense provided specific responses to the government’s questions on June 25, 2025, still well over two weeks before trial.

his “gas ratio methodology” for the first time. Mr. Storm did not complain about the timeliness of these supplements.

With respect to the adequacy of the supplemental disclosures, other than lobbying its general complaint about an “array of deficiencies,” the government points to no specific failings in the supplemental disclosures.<sup>2</sup> In any event, to the extent any of the defense’s disclosures could be deemed insufficiently robust, preclusion of the experts’ testimony is not the appropriate remedy. *See United States v. Kwok*, 2024 WL 1773143, at \*1 (S.D.N.Y. Apr. 24, 2024) (“With more than three weeks until trial, the Court finds exclusion [of defense expert testimony] too harsh a remedy.”); *Media Glow Digital, LLC v. Panasonic Corp. of N. Am.*, 2019 WL 1055527, at \*1 (S.D.N.Y. Mar. 6, 2019) (explaining that “[r]ejection of expert testimony is the exception rather than the rule”; thus “‘vigorous cross-examination’ and ‘the presentation of contrary evidence’” are appropriate remedies); *Rosario*, 2014 WL 6076364, at \*4 (explaining that even where an expert’s prior disclosures can be properly challenged as untimely, the court can choose not to exclude the proposed testimony where “the substance of the proposed testimony was not a surprise” and would cause no prejudice from the timing of the disclosure). Further, “[t]rial courts in this circuit have concluded that preclusion is generally not appropriate where a defendant’s supplemental disclosures permit the Government to prepare a meaningful cross-examination.” *United States v. Tuzman*, 2017 WL 6527261, at \*11 (S.D.N.Y. Dec. 18, 2017) (citing *United States v. Ahmed*, 2015 WL 1611947, at \*2 (E.D.N.Y. Apr. 9, 2015)).

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<sup>2</sup> With respect to Dr. Green’s disclosures, the government complains that the supplemental disclosure did not change anything substantive about the initial disclosure. This is true, but as explained below, there was nothing inadequate about the initial disclosure, and obviously the government has not been prejudiced by a supplemental disclosure that it agrees makes no substantive changes.

Here, the defense has acted in good faith in providing expert witness disclosures and repeatedly and voluntarily providing supplemental information to the government in response to their objections and questions. The information provided—which was not even required in the first place—has been more than adequate to allow the government to prepare meaningful cross-examinations. Neither the timeliness nor the adequacy of the defense’s disclosures provides any basis for preclusion of its expert witnesses.

**B. Dr. Matthew Green’s Expert Testimony Should be Admitted in Its Entirety**

The government offers no new argument against Dr. Matthew Green testifying except that his supplemental disclosure included largely non-substantive changes. (*See* Second Exclusion Mot. 1-2.) The defense agrees that the supplemental disclosure makes non-substantive changes. But these changes (which largely identify the opinions in Dr. Green’s disclosure without changing the substance of what he said) were made to address the government’s complaint that Dr. Green’s initial disclosure was inadequate because it failed to identify his opinions. The government thus cannot now complain that it does not know what Dr. Green’s opinions are, and it has not been prejudiced in any way by the supplemental disclosure.

The government nevertheless argues that Dr. Green’s testimony should be excluded for the reasons argued in its original motion to exclude defense experts. (*Id.* at 2 (citing Dkt. 159 at 6-14).) The defense stands on its opposition to the government’s motion and maintains that Dr. Green’s testimony is proper and should not be excluded. (*See generally* Dkt. 176 at 20-27.)

**C. Dr. Stephanie Hurder’s Proposed Testimony Should Be Admitted in Its Entirety**

The government’s request to exclude the entirety of Dr. Stephanie Hurder’s proposed testimony is legally and factually baseless and should be denied.

**1. Dr. Hurder's Supplemental Disclosure Provided Additional Bases in Support of Her Timely Disclosed, Adequately Based, Opinions**

As a threshold matter, the government has waived any argument that Dr. Hurder's disclosure is untimely. Beyond the bare accusation of untimeliness on page 2, the government does not develop its timeliness objection, and fails to identify any authorities in support. (*See* Second Exclusion Mot. at 2.) The government does not point to a single opinion of Dr. Hurder of which it was not previously aware, much less how it was prejudiced from any lack of disclosure. Nor could it. Indeed, and to the contrary, as to each of its objections, the government admits that Dr. Hurder's supplementary bases relate back to Dr. Hurder's Initial Disclosure (*see, e.g., id.* at 2, 4, 7, 9) and respond to the government's complaints raised for the first time in its First Exclusion Motion.

First, the government challenges Section 1 of Dr. Hurder's supplemental disclosure, which provides further support for her opinion that users' desire to participate in Tornado Cash DAO governance was a driver of demand for TORN. (*See id.* at 3.) This opinion responded directly to the government's claims that her opinion was "speculation" and "irrelevant." (*See* First Exclusion Mot. at 19 (citing Hurder Initial Discl. ¶ 11(d)).) The fact that the government spent 10 pages raising this point in its First Exclusion Motion evidences that her opinion was disclosed and the government understood it. (*Id.* at 14-24.)

Second, the government challenges Dr. Hurder's opinion that price movements of TORN are significantly correlated with BTC and ETH movements, for which the supplemental disclosure provided additional bases of support, including additional academic articles and a regression analysis. (*See* Second Exclusion Mot. at 7-8.) Again, this opinion was disclosed, and adequately based, from the outset. (*See* Hurder Initial Discl. ¶ 17 ("The price of TORN has consistently exhibited a strong correlation with crypto markets and market sentiment overall, as

proxied by ETH and BTC. This was especially true in the period after the relayer registry launch.”.) The defense merely supplemented Dr. Hurder’s bases for her opinion in response to the government’s sufficiency challenges, much as the government has continued to submit additional materials in support of its experts, SA DeCapua and Mr. Werlau. (*See supra* at 3-4).

Third, the government challenges Dr. Hurder’s opinion that the Ronin Hack did not benefit the price of TORN, which she has now confirmed with regression analysis. (*See* Second Exclusion Mot. at 9.) This opinion also was previously disclosed. (*See* Hurder Initial Disclosure ¶ 19 (“Despite the significant amount of . . . ETH allegedly moving through the Tornado Cash smart contracts [from the Ronin hack], there was no benefit to the price of TORN.”).)

As explained above, Dr. Hurder has not provided new opinions, but additional support for the previously-disclosed opinions. This is perfectly appropriate and permissible. *See* Fed. R. Crim. P. 16(b)(1)(C)(vi), 16(c); *see also, e.g., Gentile*, 2024 WL 3455834 at \*5.

## **2. The Government’s Other Challenges to Dr. Hurder’s Proposed Testimony Are Meritless**

Apart from timeliness, the government challenges various aspects of Dr. Hurder’s TORN pricing analyses. (*See* Second Exclusion Mot. at 2-10.) Dr. Hurder is qualified by her education, background, and experience to provide testimony regarding TORN pricing under Rule 702.

The government’s brief is nearly bereft of legal authority applying the *Daubert* standard; perhaps because such authority supports the admission of the expert testimony. In this Circuit, exclusion of expert testimony is “the exception rather than the rule.” Fed. R. Evid. 702, 2000 Advisory Committee Notes; *accord Restivo v. Hessemann*, 846 F.3d 547, 577 (2d Cir. 2017) (noting that most challenges go to the weight of the evidence, not to its admissibility). The Second Circuit has held that “Daubert reinforces the idea that there should be a presumption of admissibility of evidence,” and advances “a bias in favor of admitting evidence short of that

solidly and indisputably proven to be reliable.” *Borawick v. Shay*, 68 F.3d 597, 610 (2d Cir. 1995). As such, “as long as an expert’s scientific testimony rests upon ‘good grounds, based on what is known,’ it should be tested by the adversary process—competing expert testimony and active cross examination—rather than excluded from jurors’ scrutiny for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies.” *In re Fosamax Prods. Liab. Litig.*, 645 F. Supp. 2d 164, 173 (S.D.N.Y. 2009) (“[I]n accordance with the liberal admissibility standards of the Federal Rules of Evidence, only serious flaws in reasoning or methodology will warrant exclusion.”).

As the defense previously noted, because the government does not challenge Dr. Hurder’s qualifications, the only issues for this Court to consider are whether Dr. Hurder’s proposed testimony is reliable and relevant. *See In re Zyprexa Prods. Liab. Litig.*, 489 F. Supp. 2d 230, 282 (E.D.N.Y. 2007) (courts assessing expert testimony “start[] with the assumption that a well-qualified expert’s testimony is admissible[.]”).

**(a) The Government’s Reliability Challenges Are Legally and Factually Baseless**

The government purports to challenge three separate aspects of Dr. Hurder’s supplemental report, but all three challenges relate to Dr. Hurder’s analysis of TORN pricing, which are strongly supported by academic research, Dr. Hurder’s own specialized experience, and her particularized analysis of the case facts. (*See* Second Exclusion Mot. at 2.) Across all three purported challenges, the government’s criticisms go to the weight and not the admissibility of Dr. Hurder’s opinions. *Campbell ex rel. Campbell v. Metro. Prop. & Cas. Ins. Co.*, 239 F.3d 179, 186 (2d Cir. 2001) (challenges to expert testimony based on alleged “gaps or inconsistencies...go to the weight of the evidence, not to its admissibility”); *see also Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 595 (1993) (“The focus [of the admissibility inquiry],

of course, must be solely on principles and methodology, not on the conclusions that they generate.”).

As an initial matter, the government consistently takes statements from Dr. Hurder’s supplemental disclosure out of context, ignoring not only how the points are structured within the supplement but also how they relate to, and build upon, her initial disclosure. As such, any confusion the government implies is created by the government itself. Viewed in context, Dr. Hurder’s opinions are adequately disclosed, supported by her education and expertise, and admissible.

**(i) Dr. Hurder Appropriately Followed Established Methodologies to Conduct Her Regression Analyses, and the Government’s Challenges Go to Weight, Not Admissibility**

As discussed above, the government’s arguments relate to Dr. Hurder’s opinions concerning the demand and pricing drivers of TORN. (Second Exclusion Mot. at 3-10.) Specifically, the government challenges Dr. Hurder’s opinions regarding (1) the effect of DAO governance (generally and particularized to TORN demand); (2) the significant correlation between the price of TORN with the price of BTC and ETH; and (3) the effect of the Ronin Hack on the price of TORN. (*Id.*) In challenging these opinions, the government misapprehends (1) the nature and methodology of regression analyses and (2) common statistical terms that economists and statisticians use to evaluate such analyses.

First, the government misunderstands correlation data and its significance. (*See id.* at 7-8.) As an initial matter, where the effect of certain conduct or an event on a particular market is at issue, economists are permitted to testify regarding the correlative effect of market factors on pricing. *See e.g., SEC v. Ripple Labs, Inc.*, 2023 WL 5670711, at \*9 (S.D.N.Y. Mar. 6, 2023) (permitting expert to testify about correlation between Ripple announcement and XRP price

based on correlation evidence despite of absence of causation analysis); *see also Schwab v. Philip Morris USA, Inc.*, 449 F. Supp. 2d 992, 1181 (E.D.N.Y. 2006), *rev'd on other grounds sub nom. McLaughlin v. Am. Tobacco Co.*, 522 F.3d 215 (2d Cir. 2008) (economist permitted to testify that “there [was] a strong correlation between changes in Defendants’ stock prices and public announcements regarding either the dangers of smoking or the relative health aspects of smoking “light” or low-tar cigarettes.”). As Dr. Hurder explains, citing to academic literature, “[c]orrelation is a standard descriptive statistic used to quantify the comovement of cryptocurrency prices, in particular comovement with the market as proxied by BTC and ETH.” (Supplemental Disclosure at § 2 ¶ 2 (citation omitted).) As to cryptocurrency comovement, she further explains that “it is well documented in the academic literature that the prices of various cryptocurrencies are highly correlated.” (*Id.* at § 2 ¶ 1.) As to the Ronin Hack, where Dr. Hurder observed a “lack of correlation between the alleged Ronin Hack deposits and the price of TORN, combined with visual inspection of the two time series,” she determined there was “no immediate evidence of a linear relationship between the two” (*id.* at § 2 ¶ 5(b)), which is also a valid conclusion. These are supported opinions based on correlation (or lack therefore), without a regression analyses.

But correlation studies are also an appropriate and indeed necessary part of a regression analysis. It is well established in the economic literature and in caselaw that an event study based on a regression analysis begins with a correlation, or comparison, of the token to relevant market indices to account for market factors that affect all tokens. *See Ripple*, 2023 WL 5670711, at \*12 (“Courts have recognized that a standard event study is a reliable methodology that is ‘objective[ ] and consistent with scientific principles[ ]’” and permitting testimony). As explained in *In re*



*Vivendi, S.A. Sec. Litig.*, 838 F.3d 223, 254 (2d Cir. 2016),<sup>3</sup> in the context of a securities fraud case, an expert's pricing analysis begins "by analyzing the normally observed correlation between [the subject corporation's] stock price and market- and industry-wide trends over the course of a [particular] 'control period[,]'" and then comparing what the corporations' stock price "should have been on the basis of the normally observed correlation." *Id.* (citations omitted) (cleaned up).<sup>4</sup> Only by excluding the anticipated change in value based on the general market factors (as shown by comparing the stock with the correlated stocks), can the expert isolate the effect of other factors more particularized to the event being studied.<sup>5</sup> Where the results of the regression analysis does not demonstrate abnormal returns, the economist can conclude that the stock or token price simply rose and fell based on market factors.

Simply put, the point is not that an increase or decrease in the price BTC or ETH causes an increase or decrease in the price of TORN, but that the token prices move together based on factors that affect the market (and all tokens) generally, such as the economy, consumer

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<sup>3</sup> Despite differences between the market for tokens and the market for equity securities, pricing analyses in both markets typically begin by analyzing the normally observed correlation between the subject and industry-wide price trends, using both correlation and regression analyses.

<sup>4</sup> See, e.g., Torchio, Frank, *FORENSIC ECONOMICS, Event Study Analysis in Securities Litigation and the Bonferroni Correction*, 2010, available at [https://www.forensiceconomics.com/wp-content/uploads/2015/12/Event\\_Study\\_Analysis\\_in\\_Securities\\_Litigation\\_and\\_the\\_Bonferroni\\_Correction.pdf](https://www.forensiceconomics.com/wp-content/uploads/2015/12/Event_Study_Analysis_in_Securities_Litigation_and_the_Bonferroni_Correction.pdf) ("When significant new information about [a] company (e.g., corrective disclosures, earnings reports, dividend changes, stock splits, regulatory rulings, acquisition bids, asset sales, or tax legislation) is disclosed to the market, the market model is used to determine the part of the stock return that would be expected based on the return of the overall market and industry. The remaining part of the stock return (which cannot be explained by the return on the market and industry) is attributed to the new company-specific information or to chance. If the disclosure of the new information is accompanied by a stock return that is outside of the stock's normal volatility range (as measured by the market model), then the return is said to be 'statistically significant.'").

<sup>5</sup> See, e.g., Event Study, WIKIPEDIA, available at [https://en.wikipedia.org/wiki/Event\\_study](https://en.wikipedia.org/wiki/Event_study) (regression analyses compares subject stock price and "reference index" of market stocks to explicate the typical relationship between the stock and the reference index; "abnormal returns" are the metrics of interest.")

confidence, etc., and that only movements that do not accord with the market are likely attributable to other more specific events. For this reason, Dr. Hurder does not contend (and it would be inaccurate to say) that movements in the price of BTC or ETH have a causal relationship with the price of TORN.<sup>6</sup> Thus, in objecting to Dr. Hurder's testimony on the basis that she does not suggest a causal relationship between BTC, ETH and TORN, the government attacks an irrelevant strawman. (*See* Second Exclusion Mot. at 6-8.) Dr. Hurder's regression analyses were conducted in accordance with the appropriate methodology from her field and based on her experience and relevant data.

That the government may wish a regression analysis covered a different period of time is not a reason to exclude it. It is inherent in the nature of regression analysis that an expert must use discretion to define the study's selection criteria. *See Ripple*, 2023 WL 5670711, at \*13 ("When constructing any event study, an expert necessarily must make determinations about what is considered news."); *McIntire v. China MediaExpress Holdings, Inc.*, 38 F. Supp. 3d 415, 429 (S.D.N.Y. 2014) ("[A]n expert who is conducting an event study necessarily must use his or her discretion to define selection criteria that are conducive to the execution of a meaningful multivariate regression analysis") (citing *Billhofer v. Flamel Techs.*, 281 F.R.D. 150, 163 (S.D.N.Y.2012) (determining selection criteria "necessarily requires a researcher to make an independent determination")).

Finally, the government complains that Dr. Hurder did not provide the regression analyses themselves with her disclosures. (*See* Second Exclusion Mot. at 6.) But she is not required under Rule 16 to provide these analyses. Rather, only her opinions, and the bases

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<sup>6</sup> To better understand the methodology of a regression analyses in the context, Dr. Hurder provided a reference to a leading book: Gelman, A. and J. Hill., *Data Analysis Using Regression and Multilevel/Hierarchical Models*, Cambridge University Press, 2006.

thereof, are required to be disclosed. *See* Fed. R. Crim. P. 16(b)(1)(C)(iii) (requiring a defendant to produce, “a complete statement of all opinions that the defendant will elicit from the [expert] witness in the defendant’s case-in-chief” and “the bases and reasons for them.”). The government has the necessary information to conduct its own analyses, if it wishes. As such, by setting forth her data, methodology, and the results of her analyses, she has complied with her disclosure requirements under the federal rules.

**(ii) Dr. Hurder’s Opinions and Analyses Regarding the Value of TORN as a Governance Token Are Reliable and Will Assist the Jury**

Beginning with the government’s challenge to Dr. Hurder’s opinion regarding the value of TORN as a governance token, the government divorces this opinion from its original context where it was part of a broader discussion of what the academic literature and her own experience shows drives token demand. (*See* Second Exclusion Mot. at 2-4.) Among other things, and as discussed above and below, token prices in general are strongly correlated with BTC and ETH, and can be affected by the particular “use cases” for a token, such as DAO governance. (*See, e.g.,* Hurder Initial Discl. ¶ 3.) Dr. Hurder offers specific evidence to prove that TORN specifically is strongly correlated with BTC and ETH, and that the use case of TORN as a governance token for the Tornado Cash DAO did provide value to TORN holders and support demand for TORN. (*See, e.g., id.* ¶ 11(d); Supplemental Disclosure at § 1.) Against this background, she ultimately opines that the launch of the relayer registry did not drive up the price of TORN, in contrast to the government’s proposed expert testimony, which, as discussed below, is a key issue in this case. (Hurder Initial Discl. 15.)

The government’s specific criticisms of Dr. Hurder’s explanation of DAO governance as a value and demand driver for TORN go to the weight and not the admissibility of the evidence, and fall short in any event. (*See* Second Exclusion Mot. at 2-6.) Economists can provide both

qualitative and quantitative analyses relevant to consumer demand in a market, as Dr. Hurder does.<sup>7</sup> See *Schwab*, 449 F. Supp. 2d at 1181 (economist and scholar permitted to testify that perceived safety is an important factor in the demand for cigarettes); *Louis Vuitton Malletier S.A. v. Sunny Merch. Corp.*, 97 F. Supp. 3d 485, 505 (S.D.N.Y. 2015) (admitting economist’s brand-value opinion based on qualitative experience); *Beastie Boys v. Monster Energy Co.*, 983 F. Supp. 2d 354, 364-65 (S.D.N.Y. 2014) (finding qualitative economic testimony regarding branding admissible because expert’s reasoning was grounded in experience and research in the field). Such testimony is reliable—even more so—where the expert has included appropriate caveats as to the limits of their analyses. See *Cedar Petrochemicals, Inc. v. Dongbu Hannong Chem. Co.*, 769 F. Supp. 2d 269, 285 (S.D.N.Y. 2011) (“The experts have not made conclusory assertions based on insufficient facts, but rather have made limited assertions tied directly to the limited evidence . . . available . . . That they have been upfront about [these] limitations . . . is, in my view, to their credit, and will allow for a more frank assessment of the weight that should be afforded to their conclusions.”) Should the government wish to explore and highlight those limits, it can do so on cross-examination.

Similarly, economists can, based on their training and specialized experience, appropriately opine as to the behavior of consumers and organizations in a market. *Schwab*, 449 F. Supp. 2d at 1181 (economist and scholar permitted to testify that cigarette company actions that “fit[] the pattern that economists describe as collusion”). Contrary to the government’s claim, it is therefore appropriate for Dr. Hurder to support her opinions by summarizing the engagement of the TORN DAO in community proposals, which, based on her experience

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<sup>7</sup> Of course, the government’s own expert does not purport to achieve this, offering his only (baseless) speculation that the relay registry would have enhanced the price of TORN by creating demand for TORN. (See Dkt. 158 at Ex. 1, Werlau Disclosure.)

designing token launches and DAOs, she can contextualize to assist the jury. (*See* Second Exclusion Mot. at 5; *Scott v. Chipotle Mexican Grill, Inc.*, 315 F.R.D. 33, 45 (S.D.N.Y. 2016) (“An expert also may offer commentary on documents in evidence if the expert’s testimony relates to the ‘context in which [documents] were created, defining any complex or specialized terminology, or drawing inferences that would not be apparent without the benefit of experience or specialized knowledge.’”) (citing *Fosamax*, 645 F.Supp.2d at 192).)

Finally, Dr. Hurder has appropriately further supported her opinion by providing a regression analysis to isolate the effect of the malicious hack of the DAO in May 2023. The government’s argument that the defense “has already conceded” that “the opinion” “is unsupported” is a red herring. (*Id.*) The government asked the defense how Dr. Hurder “used regression analysis to control for market movements,” to which the defense responded that log-log “regressions are used to estimate comovement among positive variables,” and that she:

[C]onducted a regression analysis to estimate whether, post-DAO hack, movements in the price of TORN deviated significantly from the crypto market as proxied by ETH and BTC. As such, she ran a regression that included the prices of ETH and BTC as controls. Dr. Hurder does not conclude that this is causal.

(Second Exclusion Mot., Ex. 2 at 3.)

As discussed above, the government apparently does not understand the statistical methodology and terminology of an event study with regression analysis to analyze the effects of a particular market event unique to a particular token. After running the necessary controls, Dr. Hurder reached the conclusion that “the DAO hack was associated with a 54% net decrease in the price of TORN, which was statistically significant at the 1% level.” (Supplemental Disclosure at § 2 ¶ 5(f).) This conclusion is well-supported and appropriately described: Economists who conduct event studies based on standard statistical methodology speak in terms

of what the statistics support, which is what an event is “associated with.”<sup>8</sup> Nevertheless, Dr. Hurder also explained her opinion and its significance in common sense terms, explaining that the hack, “which temporarily disabled the governance functionality of the DAO, had a substantial negative impact on the TORN token price, indicating the governance value of the TORN token.” (*Id.* § 2 ¶ 5.)

Simply put, Dr. Hurder has followed well-established and appropriate methodology in her field and applied it to the facts here. Her opinions are reliable.

**(iii) Dr. Hurder’s Opinions and Analyses Regarding the Correlation of TORN, ETH And BTC Are Reliable**

As noted above, the fact that TORN price movement correlates with BTC and ETH is well established in Dr. Hurder’s field and by her particular analysis and is an appropriate subject of expert testimony. (Hurder Intial Discl. at ¶ 17; Supplemental Disclosure at § 2 ¶¶ 1-3.) Dr. Hurder’s comparison of the price of TORN to ETH and BTC provides this same foundation to the jury, illustrating that only price movements that defy the market correlation have significance.

The government also objects that Dr. Hurder does not opine as to whether TORN prices correlated with Tornado Cash smart contract activity. (Second Exclusion Mot. at 7.) This is not a

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<sup>8</sup> The UC Berkeley Statistics department defines “association” as follows:

Two variables are associated if some of the variability of one can be accounted for by the other. In a scatterplot of the two variables, if the scatter in the values of the variable plotted on the vertical axis is smaller in narrow ranges of the variable plotted on the horizontal axis (*i.e.*, in vertical “slices”) than it is overall, the two variables are associated. The correlation coefficient is a measure of linear association, which is a special case of association in which large values of one variable tend to occur with large values of the other, and small values of one tend to occur with small values of the other (positive association), or in which large values of one tend to occur with small values of the other, and *vice versa* (negative association).

Available at <https://www.stat.berkeley.edu/~stark/SticiGui/Text/gloss.htm>

reason to exclude the correlation data and regression analyses she offers. Dr. Hurder did analyze smart contract activity post-Ronin hack, through a regression analysis. It is unclear why the government thinks she would have attempted to compare TORN with Tornado Cash smart contract activity generally from the outset of the project, as the government has offered no data or argument to suggest there is any correlation between Tornado Cash usage and TORN value until 2022.<sup>9</sup> In any event, should the government have questions about why Dr. Hurder selected the regression analysis criteria that she did, and whether Tornado Cash volumes also affected the price of TORN, they can inquire on cross-examination, but it is not a reason to exclude the testimony. *Chen-Oster v. Goldman, Sachs & Co.*, 2022 WL 814074, at \*7 (S.D.N.Y. Mar. 17, 2022) (“There is no requirement that an expert run a specific analysis, so long as they have a methodological explanation for the analysis they chose.”); *Aventis Env’t Sci. USA LP v. Scotts Co.*, 383 F. Supp. 2d 488, 514 (S.D.N.Y. 2005) (“Defendants are free to challenge the basis and source for Dr. Martin’s numbers, but a challenge to the facts or data relied upon by Dr. Martin does not go to the admissibility of his testimony, but only to the weight of his testimony.”); *see Guardino v. Alutiiq Diversified Servs., LLC*, 457 F. Supp. 3d 158, 162 (N.D.N.Y. 2020) (“Disputes regarding . . . an expert’s use or application of her methodology, or the existence or number of supporting authorities for an expert’s opinion, go to the weight, not the admissibility of her testimony.”) (citation omitted).

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<sup>9</sup> Even here, the government seems confused about its own theories, suggesting at the top of page seven that the relevant comparison is TORN and “Tornado Cash smart contract activity,” and at the bottom of page seven describing the relevant comparison as “TORN token prices” and “Tornado Cash revenues (or a proxy for revenues such as overall Tornado Cash volumes).” The latter is of course nonsense as Tornado Cash had no revenues.

**(iv) Dr. Hurder’s Opinions and Analyses That the Ronin Hack Did Not Enhance the Value of TORN Are Reliable**

Finally, the government challenges Dr. Hurder’s analysis of the Ronin Hack effect on TORN pricing for “methodological flaws.” (*See* Second Exclusion Mot. at 9.) Dr. Hurder has followed industry-standard practices in conducting her regression analyses, and the government’s objections are misplaced.

First, the government argues that courts have “expressed caution” about expert testimony that estimates “the market effect of a single event based on a simple analysis of market prices after the event.” (*Id.*) Notably, the government does not contend that such a simple analysis is inadmissible. Nor can it—the government provides no authority to support such a sweeping exclusion. In any event, as to the Ronin Hack, Dr. Hurder ran two relevant regression analyses. Accordingly, she is not supporting her opinion solely on a “simple analysis of market prices.”

The government’s subsequent challenges to Dr. Hurder’s Ronin Hack regression analyses concern whether she “look[ed] at the price impact of any other events or news regarding Tornado Cash,” and why she selected a two-week window from the announcement of the Ronin Hack, “as opposed to some other time frame.” (Second Exclusion Mot. at 9-10.) These are questions the government certainly may ask about on cross-examination, but they do not undermine the reliability or admissibility of the testimony. *Aventis Env’t Sci. USA LP*, 383 F. Supp. 2d at 514 (“Defendants are free to challenge the basis and source for Dr. Martin’s numbers”).

**(b) The Government’s Relevance Complaints Are Legally and Factually Baseless**

The government does not seriously debate the relevance of Dr. Hurder’s testimony, nor could it given that it intends to argue, *inter alia*, that:

- “The Indictment in this case clearly alleges that the Tornado Cash service was a profit-making venture in at least two respects: the fees charged by relayers for conducting



Tornado Cash withdrawals for customers, and the increased value of the defendant's TORN holdings attendant to the success of the relay network." (Dkt. 120 at 13 (internal citations omitted)).

- "This [relay registry] algorithm served to boost the value of TORN tokens because it gave Tornado Cash relayers an incentive to purchase and stake more TORN tokens." (Dkt. 1, Indictment ("Ind.") ¶ 30.)
- The relay registry "creat[ed] steady demand for TORN tokens and upward momentum for their value." (Ind. ¶ 31.)
- "The defendant, a significant TORN token holder, received a financial benefit from the transaction by designing a system in which the relayers kicked back a payment to TORN token holders each time the relay earned a withdrawal fee, which in turn generated demand for TORN and supported its value. (Ind. ¶¶ 30-31)." (Dkt. 120 at 12.)
- Storm and the Peppersec co-developers "reaped substantial profits from the service," which came from the per-transaction fees paid by customers to relayers, some of which the relayers (i) paid as fees to the holders of TORN tokens and (ii) used to buy more TORN tokens, thereby driving up the value of those tokens, of which the defendant and his co-conspirators owned many." (Ind. ¶¶ 29-31.)
- "In fact, as STORM well knew, he and the other Tornado Cash founders had developed the Tornado Cash service as a business, had pitched it to investors as an opportunity to make profits, and were in fact operating the Tornado Cash service with the intention of making profits *from increasing the value of their TORN tokens*." (Ind. ¶ 41) (emphasis added)
- The relay registry "served to increase the value of TORN tokens," by "requiring relayers to purchase TORN tokens, creating increased market demand for these tokens." (See Dkt. 158 at Ex. 1, Werlau Disclosure.)<sup>10</sup>
- "As described in the Indictment, the defendant and his coconspirators took a number of affirmative steps to facilitate and profit from the Lazarus Group's money laundering and sanctions evasion, including by continuing . . . to maintain the relay algorithm, the Relay Registry, and other smart contracts, which were the profit engine for the Tornado Cash service." (Dkt. 120 at 10).

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<sup>10</sup> The government attempts to make Dr. Hurder's testimony sound less relevant by suggesting that its TORN arguments are limited to a theory that "TORN was used to monetize the fees charged by the Tornado Cash service." (Second Mot. to Exclude at 3; *see also id.* at 4 ("fee monetization").) This statement simply makes no sense as the "Tornado Cash service" charged no fees, but in any event, as set forth above, the government's theories of Founder and "service" profits are not limited to "fee monetization" (whatever that means).

Indeed, “[t]he bar for relevance is ‘low,’” and “need not be dispositive of the core legal issue in this case for the opinions to satisfy the ‘low bar’ for relevance” as long as the expert’s specialized knowledge “will help the jury determine a fact at issue in the case.” *Ripple*, 2023 WL 5670711, \*17-18 (citing *United States v. Jones*, 2018 WL 1115778, at \*9 (S.D.N.Y. Feb. 27, 2018)). The government has put at issue, among other things, the Founders’ intentions regarding the establishment of TORN, whether Tornado Cash is a “business,” whether illicit activity benefited the price of TORN and whether the relayer registry enhanced the value of TORN. Dr. Hurder’s testimony is responsive and relevant to all of these points.

The government’s relevance challenge to Dr. Hurder’s opinion that DAO governance was an important market driver of the value of TORN is not well taken. (*See* Second Exclusion Mot. at 3.) Importantly, for most of the life of the project, up until February 2022, governance was the only use case for the TORN token, and therefore the only potential basis for its value (aside from general market factors). Given that Counts One and Two of the indictment are alleged to begin prior to the launch of TORN in February 2021, whether Tornado Cash was a “service” that derived “profits” during that period is just as relevant to the jury’s conclusions as is the post-relayer registry period (to which Dr. Hurder’s opinions also speaks). This pre-February 2022 time period is also relevant because the government’s expert Stefan George intends to testify about Tornado Cash use, and v-TORN sales, during this period.

Further, as discussed above, the fact that TORN pricing correlated to BTC and ETH is not only relevant but indeed crucial to Dr. Hurder’s analysis. To conduct an event study as to the effect of a particular event (such as the launch of the relayer registry) on a particular stock or token price, the analysis must begin by correlating the subject token price with market indices. If

the prices are strongly correlated, it is an indication that the rises and falls are based on market forces, not to the particular event being studied.

The government's claim then that Dr. Hurder's opinion lacks relevance because it fails to respond to the government's argument that "TORN's utility" was used "as a vehicle for monetizing the Tornado Cash service" ignores her actual opinions. (*See* Second Exclusion Mot. at 8.) To the contrary, she directly addresses these claims in several ways. Among other things, she explains that, contrary to the *ipse dixit* of the government's expert Werlau (who claims without evidence that the relayer registry would have increased the demand for TORN), while use cases that are well-designed and widely adopted can drive demand for tokens and affect token price, many use cases fail to achieve the utility or adoption required to do so. She also points out that "academic research on the determinants of blockchain-based token prices have shown that fundamentals-based models have mixed results at best in explaining and predicting token price movements." (Hurder Initial Discl. at ¶ 15(d).) She then points out specific factors that Werlau failed to take into account, such as the fact that:

The token holding requirements required by the registry were minimal compared to the circulating supply of TORN. A relayer was required to stake at least 300 TORN to be listed in the registry[.] At the time of the relayer registry launch on March 1, 2022, there were approximately 2.4 million TORN tokens in circulation. Relayers would need to buy and stake enormous amounts of TORN tokens above the minimum to materially impact the TORN token price via staking.

(*Id.* at ¶ 15(f)(i).) These factual points further undermine the government's claim that the relayer registry would have meaningfully driven up the demand for TORN.

Dr. Hurder further opines that, based on her analysis of TORN data after the relayer registry and further supported by regression analyses, "[e]mpirically, the implementation of the relayer registry did not benefit the price of TORN." (Hurder Initial Discl. at ¶ 16.) She similarly analyzes the government's claims that illicit Tornado Cash activity benefited the price of TORN

by analyzing the activity post-Ronin hack, and concludes that “the public announcement of the Ronin Hack did not benefit the TORN token price, but in fact appears to have harmed it.”

(Supplemental Disclosure Section 2, 6.) In short, Dr. Hurder offered multiple rebuttals to the government’s claims, and her testimony is relevant and will be helpful to the jury.

**D. The Testimony of Michael Carter Should Not Be Excluded for Any Reason**

**1. Mr. Carter Will Not Offer Impermissible Legal Opinions**

Contrary to the government’s argument, Michael Carter will not be offering legal opinions. (*See* Second Exclusion Mot. at 10-12.) While it is of course true that experts may not testify to legal conclusions, just because an expert’s opinion touches on statutes or regulations does not make it inadmissible. As the Second Circuit held in *United States v. Bilzerian*, 926 F.2d 1285, 1294 (2d Cir. 1991), cited by the government, an expert may testify regarding complex regulatory schemes, so long as the expert does not “usurp either the role of the trial judge in instructing the jury as to the applicable law or the role of the jury in applying that law to the facts before it.” Thus, the Second Circuit upheld the admission of expert testimony regarding securities regulation and the filing requirements of section 13D where the expert “did not give his opinion as to whether Bilzerian’s actions violated the securities laws.” *Id.*

Similarly, in *U.S. Info. Sys., Inc. v. Int’l Bhd. of Elec. Workers Loc. Union No. 3*, an antitrust case, the court described the issue as whether an expert’s report contained “embedded legal conclusions, or simply identifi[ed] factors, the existence of which would tend to indicate a conspiracy.” 313 F. Supp. 2d 213, 240 (S.D.N.Y. 2004). The court adopted a compromise position first adopted by Judge Scheindlin in *Union Carbide Corp. v. Montell N.V.*, 28 F. Supp. 2d 833 (S.D.N.Y. 1998), explaining:

Using this model, [the expert] would not be permitted to state that the defendants did or did not engage in anticompetitive conduct. He could, however, point to factors that would tend to show anticompetitive conduct in a market. He could then

indicate whether he believed those factors existed here, and what the economic significance of those factors would be.

*U.S. Info.*, 313 F. Supp. 2d at 240.

Here, Mr. Carter will usurp neither the role of the Court in instructing the jury nor the role of the jury in applying the law to the facts. He will not interpret the law regarding what constitutes a “money transmitting business,” leaving that for the Court’s instructions, and he will not testify to the ultimate legal conclusion that Tornado Cash was not a money transmitting business or was otherwise acting lawfully, leaving that conclusion for the jury. Rather, Mr. Carter will only testify, as in *Bilzerian* and *U.S. Info.*, as to the background regarding banking and financial regulations and the obligations they impose and will testify regarding certain factors that indicate whether an entity falls within the ambit of those regulations and whether, in his opinion, those factors are present here.

The government identifies three specific areas that it contends constitute legal opinions: “(1) the BSA and its implementing regulations ‘do not apply’ to the Tornado Cash service because it is an “organization[] that merely transmit[s] information;” (2) “[s]oftware developers have no legal or ethical duty to act in the interests of their users;” and (3) “[t]ransactions that [involve] privacy features . . . should not be viewed as inherently illicit.” (Second Exclusion Mot. at 11, citing Dkt. 176-3 at 1-2, 5, 10-11). The government apparently seeks to preclude testimony from all of sections 1 and 4 of Mr. Carter’s disclosure as well as “a portion” of section 2 on the basis that they are legal opinions. (*See id.*)

As to its first category, the government misstates Mr. Carter’s opinion to try to make it into an impermissible legal opinion. Mr. Carter did not state and will not testify that the regulations “do not apply to Tornado Cash”; rather, he will testify that the “regulations do not apply to organizations that merely transmit information.” (Dkt. 176-3 at 1.) He will offer

examples of other organizations that merely transmit information (Nacha and SWIFT) and will observe that they are not subject to BSA regulations. (Dkt. 176-3 at 1-2.) He will also opine that Tornado Cash has similar features. (*Id.*) These opinions fall squarely within the parameters defined by *Bilzerian* and *U.S. Info* and are not impermissible legal conclusions. Indeed, Mr. Carter's opinions are nothing like those offered, for example, in the case cited by the government, *In re Initial Pub. Offering Sec. Litig.*, 174 F. Supp. 2d 61, 64 (S.D.N.Y. 2001). There, the experts were law professors opining about whether the judge should recuse herself pursuant to 28 U.S.C. § 455. The judge explained that "[t]his decision involves nothing more than interpreting the statute given certain undisputed facts; it is solely a question of law." *Id.* at 65. Mr. Carter is not a law professor or even a lawyer. His opinions are not about interpreting the statute—they are about determining whether, in his experience as a compliance expert, Tornado Cash has the attributes of a business that would be required to be licensed as a money transmitting business.

As to its second category, the government takes Mr. Carter's supposed opinion out of context, again in its attempt to manufacture an impermissible legal opinion. Mr. Carter's opinion regarding software developers' legal and ethical duties comes from his discussion of why imposing KYC procedures on them would "pose ethical concerns." As he explains,

True financial institutions have agreements with customers and act as agents holding a position of trust vis a vis their customers. Software developers have no legal or ethical duty to act in the interests of their users. It would be therefore unethical to direct developers to collect, hold, and safeguard personal information about persons to whom they have no contractual relationship or duties.

(Dkt. 176-3 at 5.) Thus, Mr. Carter is not offering any opinions about the law at all but is simply contrasting the relationship between true financial institutions and their customers with the relationship between software developers and their users to show why KYC procedures that

make sense in the context of financial institutions do not make sense in the context of software developers.

The government's third category—the opinion that offering privacy features is not inherently illicit—has already been addressed in Mr. Storm's opposition to the government's original motion to exclude defense experts. (See Dkt. 176 at 46-47.) To reiterate, this opinion is not a statement about the law. Mr. Carter will not be testifying about the elements of any charge and will not state that Tornado Cash was legal. He is merely testifying as to the appropriate need for privacy in financial transactions. He will provide specific examples from his own professional experience and conclude that “privacy tools are an important element of routine digital and financial safety measures commonly used by the public and varyingly acknowledged and encouraged by government agencies.” (Dkt. 176-3, at 11.) This testimony responds directly to the government's anticipated arguments that Tornado Cash was created as a vehicle for money laundering rather than created for legitimate reasons related to privacy. It is the government that is placing the propriety of software that enhances privacy in issue, and it is certainly permissible for the defense to put on expert testimony to rebut, as a factual matter, whether there are non-criminal reasons for developing software that maintains privacy.

Finally, the government argues that Mr. Carter's opinions regarding the applicability of the BSA and its implementing regulations, regardless of whether they are impermissible legal opinions, are irrelevant in light of the government's decision not to pursue the object of the conspiracy based on 18 U.S.C. § 1960(b)(1)(B). As Mr. Storm stated in his opposition to the government's original motion to exclude defense experts (Dkt. 176 at 43), the government is wrong that FinCEN's regulatory requirements for money transmitters are no longer relevant to this case. Section 1960, including subsection (b)(1)(C), only applies to “money transmitting

businesses,” all of which are required to be registered with FinCEN. *See* 31 U.S.C. § 5330(a); *see also* Ind., Dkt. 1 at ¶ 32 (“Under federal law, all money transmitting businesses, including businesses engaged in transmission of cryptocurrencies such as ETH, are required to register with [FinCEN].”). Thus, testimony providing background information regarding the BSA, FinCEN, and the regulations and providing opinions about whether those regulations apply to businesses that only transmit information are highly relevant to the jury’s consideration of the element of the offense that Tornado Cash was a money transmitting business.

Moreover, the government has never identified the source of any obligation to implement KYC other than the BSA. It is therefore appropriate that Mr. Carter begin his analyses by discussing the applicability of the BSA, as a threshold requirement for the implementation of KYC.

## **2. Mr. Carter’s Opinions Regarding the Impossibility of Implementing KYC and ABM Procedures Is Proper and Should Not Be Excluded**

The government first argues that Mr. Carter’s discussion of ABM procedures (Opinion 3, Dkt. 176-3 at 7-10) is irrelevant because the government does not plan to put in evidence about ABM procedures. The government misses the point. As with KYC procedures, ABM procedures are part of the practical mechanisms through which a money transmitting business is able to comply with its reporting obligations to FinCEN. As Mr. Carter explains:

Tornado Cash, as software, could not possess the structure, staffing, or oversight to be able to practically or appropriately operate an ABM system or report results of ABM monitoring outcomes through reporting mechanisms provided by FinCEN. As such, abiding by related monitoring and illicit activity reporting expectations was an actual impossibility.

(Dkt. 176-3 at 10.) Thus, Mr. Carter’s opinion that Tornado Cash was not able to implement ABM procedures is directly relevant to the defense argument that Tornado Cash was not, and could not have been, a money transmitting business.



The government cannot and does not make the same argument as to Mr. Carter's testimony regarding KYC procedures. (*See* Dkt. 186 at 12.) The government has put KYC procedures directly in issue in this case through the allegations in its indictment (*see* Dkt. 1 at ¶¶ 34, 37, 38, 44) and through its proposed expert testimony of Mr. Werlau. The defense maintains that the testimony of Mr. Werlau regarding KYC procedures should be excluded (*see* Dkt. 158 at 15-19), but if that testimony is permitted, then Mr. Carter's testimony must be permitted to rebut it.

The government instead picks at Mr. Carter's testimony insofar as it makes reference to Suspicious Activity Reports (SARs) because it says that SARs are only required of financial institutions and it does not intend to argue that Tornado Cash was a financial institution. (Dkt. 186 at 12.) Once again, the government misses the point. KYC procedures do not exist in a vacuum. If the BSA applies to Tornado Cash, then it was not only required to conduct KYC procedures but also to report suspicious activities to FinCEN. If Tornado Cash is not able as a practical matter to do such reporting, then this is relevant to rebutting Mr. Werlau's testimony that Tornado Cash should have implemented BSA compliance features, including KYC.

The government's arguments regarding the reliability of Mr. Carter's opinions are not really arguments about reliability at all, but rather quibbles with Mr. Carter's conclusions which can be handled through cross-examination and do not warrant preclusion. *See Aventis Env't Sci. USA LP*, 383 F. Supp. 2d at 514. For example, the government takes issue with Mr. Carter's opinions about the impracticability of contracting with third-party vendors, claiming that Mr. Werlau does not mention third-party vendors and that Mr. Carter's opinions are "unsupported." (Dkt. 186 at 13.) But the reason Mr. Carter discusses third-party vendors is that, as he explains, "KYC tools are most often provided by third-party vendors that charge fees to provide KYC

services.” (Dkt. 176-3 at 4.) This fact is well within Mr. Carter’s area of expertise and is relevant to his ultimate conclusion that implementing KYC procedures would have been impracticable. That Mr. Werlau does not himself discuss third-party vendors says nothing about the reliability of Mr. Carter’s testimony (if anything, it indicates the lack of knowledge by Mr. Werlau).

Moreover, the government’s contention that Mr. Carter’s opinion is based on a false assumption about the structure of Tornado Cash (Dkt. 186 at 13) provides no basis for exclusion. If the government believes Mr. Carter’s analysis of Tornado Cash’s structure is wrong or inadequate, then they can ask him about it on cross-examination or offer their own evidence establishing a different structure. Contrary to the government’s contentions, Mr. Carter has not based his conclusion on defense “talking points,” but on publicly-available sources regarding Tornado Cash, which he can, as an expert, rely upon, and would in his ordinary course of duties as a compliance officer in his field. In any event, it would be no basis for exclusion. “[C]ontentions that assumptions are unfounded go to the weight, not the admissibility, of the testimony.” *Scott v. Chipotle Mexican Grill, Inc.*, 315 F.R.D. 33 (S.D.N.Y. 2016). Just because the government disagrees with Mr. Carter is not a reason to preclude his testimony.

Finally, the government’s argument that Mr. Carter is not qualified to offer his opinions based on the structure of Tornado Cash (Dkt. 186 at 14) is meritless. First, Mr. Carter has extensive experience advising and working with businesses in the digital asset and blockchain space; indeed, that has been his nearly exclusive focus for the last five years. (Dkt. 176-4 at 1-2.) In any event, it was not necessary for Mr. Carter to conduct an independent evaluation of Tornado Cash’s structure to reach his conclusions. Again, even if he were simply provided a set of reasonable assumptions about the structure of Tornado Cash, that would be an adequate basis for his ultimate opinions that that structure made it impracticable for Tornado Cash to implement

KYC and ABM procedures. *See id.* His expertise in compliance, particularly as it relates to digital assets, make him more than qualified to offer his opinions.

**E. Jeremy Sheridan’s Testimony Regarding Founders’ TORN Is Relevant and Should Not Be Precluded**

The government’s only new complaint about Jeremey Sheridan’s proposed testimony is that the distinction he draws between Founders’ TORN and TORN obtained by “Early Adopter Vouchers” is irrelevant, confusing, and wasteful of the jury’s time.” (Second Exclusion Mot. at 14.) To the extent Mr. Sheridan makes this distinction, it is simply to clarify the sources of Mr. Storm’s TORN tokens and that none of the assets discussed in SA George’s analysis came from Founders’ TORN. As he explains:

In addition, while SA George does not attribute any source of funds to the allocation of TORN that Mr. Storm received in his capacity as a co-founder and developer of the Tornado Cash protocol, this allocation will be referred to as “Founders’ TORN” throughout the remainder of this disclosure, to distinguish such TORN from TORN exchanged for Early Adopter Vouchers and any funds associated with Tornado Cash Withdrawals. In sum, none of the transactions SA George identified involve Founders’ TORN because Founders’ TORN were not accessible until the first vesting date in December 2021.

(Dkt. 176-5 at 2.)

This distinction is relevant because the TORN that Mr. Storm received as a result of his *use* of—not his development of—Tornado Cash as an early adopter cannot be the proceeds or profits from any alleged illegal activity. Thus, the failure to trace assets back to Founders’ TORN, as opposed to early adopters’ TORN, is a fundamental flaw in SA George’s tracing analysis. (This issue is further discussed in Defendant’s Motion *in Limine* No. 12, seeking the preclusion of SA George’s testimony (Dkt. 158 at 24-34), and Defendant’s Oppositions to the Government’s Motions to Preclude the Testimony of Defense Experts, objecting to the preclusion of Dr. Stephanie Hurder’s testimony (Dkt. 176 at 35-38).)

Moreover, there is nothing confusing about the distinction—it is a simple matter of distinguishing between TORN that Mr. Storm received as a result of being a founder and TORN he received, along with many others, as a result of being an early user. Nor will the testimony will be wasteful of the jury’s time. It is a simple point that will take no more than a few minutes to explain. Accordingly, there is no basis to exclude this portion of Mr. Sheridan’s testimony.<sup>11</sup>

### III. CONCLUSION

For the foregoing reasons, Mr. Storm respectfully requests that this Court deny the government’s Second Motion to Exclude.

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<sup>11</sup> The government also suggests that the defense had failed, by the time of the government’s filing, to respond to the government’s questions regarding Mr. Sheridan’s proposed testimony, and purports to reserve rights to address an amended disclosure (*See* Dkt. 186 at 15 n.3.) This is untrue and disingenuous.. In fact, on June 25, in response to specific questions from the government, the defense described (in far more detail than was necessary) the exact errors and issues Mr. Sheridan was experiencing with Mr. DeCapua’s Python script (*see* Exh. 1) (which it already disclosed had errors and issues and could not replicate DeCapua’s results (*see* Dkt. 176-5 at 11-12.)) The defense then followed up with a more detailed response to the government’s second question on July 1, the day before the government’s motion was due. (This response simply continue to elaborate on the initial March 5 disclosure, where the defense disclosed that DeCapua had failed to demonstrate how he connected his voluminous underlying data to the summary spreadsheets).

Due to the nature of the responses, the defense deemed it best to ask Mr. Sheridan to amend his disclosure rather than simply rely on the emails, but the substance of the two amendments had been disclosed. The only reason the defense did not provide the full amended and signed disclosure on July 1, which the defense explained to the government, was that Mr. Sheridan was traveling internationally and was not available to sign his disclosure. (*See* Ex. 1). The amended disclosure, provided on July 2, tracks what the defense had previously disclosed by email. (*See* Exh. 2.)

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Respectfully submitted,

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